

AMENDMENTS TO THE CLAIMS

1-17. (Canceled)

18. (Currently Amended) A method for managing a recording medium having a data area, the data area including a spare area and a user data area, sizes of the spare area and the user data area being determined at an initial status of the recording medium, the method comprising ~~the steps of:~~

~~allocating a spare area in the recording medium and a user data area within the data area at an initial status of the recording medium; and~~

~~during use of the recording medium,~~

~~reducing the size of the spare area, and~~

~~expanding the size of the user data area in correspondence with a reduction in the size of the spare area~~

determining whether an initial size of spare area is reduced, and whether an initial size of the user data area is expanded in correspondence with a reduction in the size of the spare area,
during use of the recording medium; and

recording position information on the recording medium, the position information indicating a changed position of the user data area corresponding to a determined expansion of the size of the user data area.

19-22. (Canceled)

23. (Currently Amended) A recording medium, comprising:

a data area including a spare area and a user data area, sizes of the spare area and the user data area being determined at an initial status of the recording medium, wherein during use of the recording medium, a size of the spare area is reduced, and a size of the user data area is expanded in correspondence with a reduction in size of the spare area; and
a management area storing position information indicating a changed position of the user data area corresponding to a determined expansion of the size of the user data area.

24-27. (Canceled)

28. (Previously Presented) An apparatus configured to manage a recording medium having a data area, comprising:

a controller configured to

determine sizes of a spare area and a user data area, the spare area and the user data area allocated within the data area at an initial status of recording medium,

determine whether the initial size of spare area is reduced, and whether the initial size of the user data area is expanded, during use of the recording medium, and

generate a control command to record position information on the recording medium, the position information indicating a changed position of the user data area corresponding to a determined expansion of the size of the user data area.

29. (Canceled)

30. (Previously Presented) The method of claim 18, wherein the spare area includes a replacement area and a temporary defect management area, the replacement area storing data written defective area of the user data area and the temporary defect management area storing temporary defect management information.

31. (Canceled).

32. (Currently Amended) The method of claim ~~31~~18, wherein the position information is last LSN (logical sector number) information.

33. (Previously Presented) The method of claim 18, wherein the spare area has a maximum size at the initial status.

34. (Previously Presented) The recording medium of claim 23, wherein the spare area includes a replacement area and a temporary defect management area, the replacement area configured to manage defective area of the user data area and the temporary defect management area configured to store temporary defect management information.

35. (Previously Presented) The recording medium of claim 23, further comprising:
a lead-in area configured to store position information, the position information indicating a changed position of the user data area corresponding to an expansion of the size of

the user data area.

36. (Currently Amended) The recording medium of ~~claim 35~~claim 23, wherein the position information is last LSN (logical sector number) information.

37. (Previously Presented) The apparatus of claim 28, wherein the spare area includes a replacement area and a temporary defect management area, and the controller is configured to manage the defective area of the user data using the replacement area, and record temporary defect management information in the temporary defect management area.

38. (Previously Presented) The apparatus of claim 28, further comprising:
a pickup, operably coupled to the controller, configured to record the position information to the recording medium.

39. (Previously Presented) The apparatus of claim 38, wherein the position information is last LSN (logical sector number) information.